

**REMARKS**

The present Amendment amends claims 1, 3, 4, 6 and 7 and leaves claims 2 and 5 unchanged. Therefore, the present application has pending claims 1-7.

The title of the invention stands objected to as not being descriptive. The title of the invention was changed to "STORAGE SYSTEM AND METHOD FOR A STORAGE CONTROL APPARATUS USING INFORMATION ON MANAGEMENT OF STORAGE RESOURCES" which Applicants submit is descriptive of the invention. Therefore, this objection is overcome and should be withdrawn.

Claims 1, 3, 4, 6 and 7 stand objected to due to informalities noted by the Examiner in paragraphs 6-10 of the Office Action. Amendments were made to claims 1, 3, 4, 6 and 7 to correct the informalities noted by the Examiner. Therefore, this objection is overcome and should be withdrawn.

Claims 1, 4 and 7 stand rejected under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as their invention. Various amendments were made throughout claims 1, 4 and 7 to bring them into conformity with the requirements of 35 USC §112, second paragraph. Therefore, this rejection with respect to claims 1, 4 and 7 is overcome and should be withdrawn.

Specifically, amendments were made throughout claims 1, 4 and 7 to overcome the objections noted by the Examiner in the Office Action.

Claims 1-7 stand rejected under 35 USC §103(a) as being unpatentable over Blumenau (U.S. Patent No. 6,260,120) in view of Voigt

(U.S. Patent No. 5,960,451). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1-7 are not taught or suggested by Blumenau or Voigt whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to claims 1-7 to more clearly recite that the present invention is directed to a storage control apparatus and method wherein the storage control apparatus includes a data I/O control section, which has a plurality communication ports each of which is connectable with one of a plurality of information processing apparatuses, wherein the data I/O control section is connected to a plurality of physical disk drives for storing data, receives a data I/O for data stored in the physical disk drive from the physical disk drives from the information processing apparatus via the communication ports and performs data write/read from/to the physical disk drives in accordance with the received data I/O request.

The storage control apparatus further includes a data which is read/written among the data stored in the physical disk drives and a second memory storing information on management on storage resources including the communication ports, the physical disk drives, and a storage capacity of an area of the first memory allocated for each user using the information processing apparatuses.

According to the present invention, the storage control apparatus in response to reception of a transmission request of the information on management of the storage resources from a user via a user interface, an

identifier of the communication port, an identifier of the physical disk drives, and a storage capacity of the area of the first memory which have been allocated for the user are transmitted to the user interface.

Further, according to the present invention a number of data blocks allocated to each area of the first memory is increased or decreased as needed to provide a set storage capacity of the first memory to the user so as to be usable by the user without being affected by the use of the first memory by the other users.

The above described features of the present invention now more clearly recited in more clearly recited in the claims are not taught or suggested by any of the references of record whether taken individually or in combination with each other. Particularly, the above described features of the present invention are not taught or suggested by Blumenau or Voigt whether taken individually or in combination with each other as suggested by the Examiner.

Blumenau teaches a storage controller for controlling access to data storage having a memory and at least one data port for a data network including host computers. Blumenau teaches, for example, in Fig. 1 a cache memory 32 which could correspond to the first memory as recited in the claims and volume access mapping information particularly the table illustrated in Fig. 282 which allegedly stores management type information allegedly corresponding to the information stored in the second memory as recited in the claims.

However, as clearly recognized by the Examiner in the Office Action:

"Blumenau does not disclose expressly a second memory storing information on management of storage resources including a storage capacity of

the first memory allocated for each user using the information processing apparatuses".

The Examiner recognizing the above attempts to supply these deficiencies by an alleged teaching in Voigt of the second memory. The Examiner refers to the teaching in Voigt, for example, in Fig. 2 thereof of a RAID management system 56. However, this teaching of Voigt does not supply the deficiencies of Blumenau as alleged by the Examiner.

Even beyond these apparent deficiencies, the combination of Blumenau and Voigt do not teach or suggest the features of the present invention as now more clearly recited in the claims regarding the increasing or decreasing of the number of data blocks allocated to each area of the first memory usable by the user as needed according to the present invention. This feature of the present invention is discussed, for example, in the passage of the present application beginning on page 28, line 24 through page 30, line 3. Such teaching as now more clearly recited in the claims and as described in the above noted passage of the present application cannot be found in either in Blumenau or Voigt.

Thus, both Blumenau and Voigt fail to teach or suggest a memory storing information on management of storage resources including communication ports, the physical disk drives and a storage capacity of an area of the first memory allocated for user using the information processing apparatuses as recited in the claims.

Further, both Blumenau and Voigt fail to teach or suggest that in response to reception of a transmission request of the information on management of the storage resources from a user via a user interface, an

identifier of the communication port, an identifier the physical disk drive and a storage capacity of the area of the first memory which have been allocated for the user are transmitted to the user interface as recited in the claims.

Still further, both Blumenau and Voigt fail to teach or suggest that a number of data blocks allocated to each area of the first memory is increased or decreased as needed to provide a set storage capacity of the first memory to each user usable by the user so as to not to be affected by use of the first memory by the other users as recited in the claims.

Therefore, the combination of Blumenau and Voigt fails to teach or suggest the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 USC §103(a) rejection of claims 1-7 as being unpatentable over Blumenau in view of Voigt is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-7.


In view of the foregoing amendments and remarks, applicants submit that claims 1-7 are in condition for allowance. Accordingly, early allowance of claims 1-7 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER,

MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (500.43450X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



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Carl I. Brundidge  
Registration No. 29,621

CIB/jdc  
(703) 684-1120